6. LAX FINANCIAL REGULATION AND NON CO-OPERATIVE COUNTRIES: AN EMPIRICAL ANALYSIS

In the previous sections we theoretically analysed the following hypothesis: a given country may find it advantageous to design its financial regulations, to attract capital of illegal origin, essentially offering money-laundering services. We have designated these states as LFR countries. The LFR countries activities produce benefits for the terrorism and the organised crime.

A country finds it advantageous to become an LFR country because, in defining its objective function, the economic benefits expected from offering money-laundering services are greater than the relative expected costs, associated with internal risk of the development of terrorism and of organised crime, the international risk of loss of reputation, and the possibility of a sanction by the international community. Therefore, the greater the sensitivity of a country to the benefits of money laundering, and the lower its sensitivity to the cost of money laundering, the greater is the probability that it will become an LFR country (*Proposition One*)

The utility function assumed here must therefore meet these two fundamental requirements: insensitivity to the production of pollution (terrorism and/or organised crime) and a strong sensitivity to the benefit of money laundering services supply.

But what are the economic and institutional characteristics that help define an LFR country? Based on our earlier reflections, being the international contest (i.e. the technical and the political enforcement) constant, we can state that:

* An LFR country will be one that, in terms of economic characteristics, has relatively scant physical resources to spend in international trade, and this is an initial channel of *national benefit* expected from lax regulation (*Proposition Four*);
* At the same time, an LFR country has the potential for developing financial services, also useful for money-laundering purposes, and this is a second channel of *national benefit* expected from lax regulation (*Proposition Four*);
* An LFR country also has geographical and social characteristics that shield it to some extent from the risks of terrorism and/or of organised crime and, thus reducing the *expected cost* of lax regulation (*Proposition Six*);
* An LFR country is relatively indifferent to the *expected costs* due to international reputation risks (*Proposition Five*).

But, in reality, what category of countries are actually closest to the LFR country model? The answer is immediate, thinking of the activities of the FATF. Formed in 1990, the Financial Action Task Force (FATF) is an intergovernmental body whose objective is to develop and promote policies to combat money laundering, a dangerous process aimed at concealing the illegal income generated by criminal activities.

The FATF currently has 29 member countries[48] and two international organisations[49]. Its membership therefore includes the principal financial centres of Europe, North and South America and Asia.

It is a multidisciplinary body, a fundamental condition for effectively combating money laundering, and possesses the knowledge of experts in legal, financial and economic questions. The need to cover all the aspects of the war against money-laundering is reflected in the Forty

[48] Argentina, Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Iceland, Italy, Japan, Luxembourg, Mexico, Norway, New Zealand, Netherlands, Portugal, United Kingdom, Singapore, Spain, United States, Sweden, Switzerland and Turkey.
[49] The two international organizations are the European Commission and the Gulf Cooperation Council.

Recommendations of the TATF, an instrument which the Task Force decided to adopt and which all countries are asked to follow.

These Recommendations were drafted for the first time in 1990, and revised in 1996 to incorporate the experience gained in those six years and to reflect the evolution in money laundering. They form the working base for the Task Force and an essential framework of effectiveness in combating money laundering. In particular, since 22 June 2000, the TATF has been publishing a periodic report on non-co-operative countries and territories (NCCTs) in an international effort to combat money laundering: the black-list. The report lays down 25 criteria (Appendix 1) for each country that, if violated, identify the national rules that in each country are detrimental to international co-operation in the fight against money laundering. These criteria are consistent with the Forty Recommendations.

Since June 2000, 45 countries have been monitored (Table 1) , and five black-lists have been published (22 June 2000, 22 June 2001, 7 September 2001, 1 February 2002, July 2002) indicating the jurisdictions that fail to conform to the criteria: overall, 23 countries have been identified as effective NCCTs at least once (Figure 1).

Analysing the nature of the violations in the NCCTs, country by country, (Table 2) we discover an interesting fact: over 50% of the violations concern deficiencies in financial regulation: no or inadequate regulations and supervision of financial institutions, inadequate rules for the licensing and creation of financial institutions, inadequate customer identification requirements, excessive secrecy provisions regarding financial institutions, and lack of efficient suspicious transactions reporting system.

The principal violations concern the criteria that require that co-operative countries have an efficient mandatory system for reporting suspicious or unusual transactions to a competent authority, provided that such a system aims to detect and prosecute money laundering (criterion 10), the presence internal regulations of monitoring and criminal or administrative sanctions in respect to the obligation to report suspicious or unusual transactions (criterion 11), and the presence of a centralised financial intelligence unit for the collection, analysis and dissemination of information on suspicious transactions to competent authorities (criterion 25).

The NCCTs therefore tend to violate primarily the criteria related to financial regulation. It is therefore natural to think that the TATF list of the potential NCCTs is in reality a list of countries that come closest to our theoretical definition of LFR countries. Furthermore, each potential LFR country tends to differ from the others in the number of times it has appeared on the black-list and the number of criteria it has violated. So it may be useful to construct a laxity index, based on this information, to measure the extent to which a given country is lax in its regulations.

Based on the available information, we create a Laxity Index, using a two stage process (Table 1). First stage: for each country, in every year from 2000 to 2002, each criterion can be satisfied, or can be violated fully or only partially. Therefore for each country a weight can be assigned to each criterion: 0 for compliance, 0.5 for partial violation, and 1 for total violation (Appendix 2). Doing the average of annual criteria violations, we obtain the a preliminary laxity index. Second stage: given the number and the entity of the violations, we must consider that each country can be more or less permanently on the black list. The presence of each countries can potentially range from a maximum of six to a minimum of one. So then, by weighting the respective simple laxity index for each country, we can obtain a final *Laxity Index*, in which the degree of laxity is found by considering both the number and gravity of the violations of the criteria and the more or less transitory presence of the country on the black list. Therefore for the list of the potential 45 LFR countries we can have the Laxity Index.

Having identified a sample of potential LFR countries, it is possible to perform some econometric exercises. Using a world-wide data set on the main 130 countries[50] (see Table 3 for the list), we do a Probit analysis; the dependent variable is a Binary Probit Variable, that is equal to 1 for the 45 potential LFR countries and 0 otherwise.

The estimated equation is as follows:

$$(BinaryLI)_t = b_1 + b_2(A1)_t + b_3(B1) + b_6(C1)_t + b_7(D1) + b_8(D2) + b_9(E1)e_t$$

$$\text{with } t = 1 \ldots N$$

where:

A1 = Landuse[51];
B1 = GDP per Capita[52];
C1 = Foreign Deposits per Capita[53];
D1= Democracy Index[54];
D2 = Commonwealth Country[55];
E1 = Terrorism and Organised Crime[56] Index[57].

[50] Given the 267 world countries (UN members=180), our 130 countries (BRI sample) represent the 98% of the world GDP and the 90% of the world population.

[51] **Landuse**: This entry contains the percentage shares of total land area for five different types of land use: *arable land* - land cultivated for crops that are replanted after each harvest like wheat, maize, and rice; *permanent crops* - land cultivated for crops that are not replanted after each harvest like citrus, coffee, and rubber; *permanent pastures* - land permanently used for herbaceous forage crops; *forests and woodland* - land under dense or open stands of trees; *other* - any land type not specifically mentioned above, such as urban areas. Source: Central Intelligence Agency.

[52] **Gdp-capita**: This entry shows GDP on a purchasing power parity basis divided by population (year 2001). Source: Central Intelligence Agency

[53] **Fordepositscapita**: The data of foreign deposits are derived from reporting as such or calculated by subtracting separately reported data on positions other than deposits from total external assets and liabilities. The only exception is the Netherlands Antilles, which daoes not provide this information separately(year 2001) Source: BRI. The deposit data are then divided by popolatio (year 2001).

[54] **Democracy Index:** www.geocities.com/CapitolHill/lobby/3535/country/list-di.htm

[55] **Commonwealth Country:** dummy variable, equal to 1 if the country is a Commonwealth member, 0 otherwise.

[56] Regards the Organised Crime Dummy, it's evident that the drug market dimension is an - indirect and imperfect - indicator of the organised crime problems. It is also true that it's the drug market that has given organised crime its massive resources. It's has been correctly noted that drugs became, during the 70s, a far too profitable and easy trade for even traditional and "conservative" organised crime organisations to ignore. See Rider (2002), pag.17; furthermore, there it's also noted that even terrorist groups, entered into the market, and by so doing became virtually indistinguishable from "ordinary" organised crime.

[57] **Terrorism and Organised Crime Index**: we built this variable summing two separate variables for each country : Organised Crime Dummy = equal to 1 if in the country there are drug production and/or drug markets, 0 otherwise (Source: CIA); Normalised Terrorism Indicator = average number of terrorist episodes in the country (years 1968-91) / max average number of terrorist episodes in a country (yeras 1968-91); the Terrorism indicator therefore ranges from 0 to 1 (Source: Blomberg). Consequently, our Index ranges from 0 to 2

Data Sources; Central Intelligence Agency – www.cia.gov/cia/publications/factbook; Democracy Index – www.geocities.com/CapitolHill/Lobby/3535/country/list-di.htm; Foreign Bank Deposits: Bank for International Settelements – www.bri.org/publ/qtrpdf/r_qa0206.pdf#page=44; ; Terrorism Indicators, see Blomberg B.S., Hess D.G., Weerapana A., *Terrorism From Within: An Economic Model of Terrorism*, May 2002 and ITERATE Data Set.

```
------------------------------------------------------------------------------
Probit estimates                                  Number of obs   =        130
                                                  LR chi2(6)      =          .
Log likelihood = -65.094742                       Prob > chi2     =          .

------------------------------------------------------------------------------
BinaryProbit |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     landuse |   .0055706   .0037493     1.49   0.137    -.0017779    .0129191
   gdpcapita |  -.0000673   .0000236    -2.85   0.004    -.0001136   -.0000211
fordeposit~a |   3.40e-06   1.43e-06     2.38   0.017     5.98e-07    6.19e-06
DandTvaria~e |  -.4496926   .2352834    -1.91   0.056    -.9108397    .0114545
   democracy |  -.0010027   .0056341    -0.18   0.859    -.0120454    .0100399
  commwealth |   .2645573   .2975846     0.89   0.374    -.3186979    .8478124
------------------------------------------------------------------------------
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```
Marginal effects after probit
      y  = Pr(BinaryProbit) (predict)
         =   .7814722
------------------------------------------------------------------------------
variable |      dy/dx    Std. Err.     z    P>|z|  [    95% C.I.   ]      X
---------+--------------------------------------------------------------------
 landuse  |   .0016431      .00137    1.20   0.230  -.001043  .004329   63.4623
gdpcapita |  -.0000199      .00001   -2.06   0.039  -.000039 -1.0e-06   11403.8
fordepts  |   1.00e-06      .00000    9.35   0.000   7.9e-07  1.2e-06    423892
T&Crime   |  -.1326382      .10291   -1.29   0.197  -.334336  .069059   .627538
democracy |  -.0002958      .00166   -0.18   0.859  -.003549  .002958   38.9462
commwealt*|   .0743387         .08    0.93   0.353  -.082459  .231136   .276923
------------------------------------------------------------------------------
(*) dy/dx is for discrete change of dummy variable from 0 to 1
```

The regression shows that the probability to be a LFR country will depend on economic variables (*Proposition One*).

Firstly, we have stated that an LFR country will be one that, because of its geographical and economic characteristics, has relatively scant physical resources to spend in international trade, and this is the first channel of *national benefit* expected from lax financial regulation *(Proposition Four)*. We note that the probability that a country became a LFR country tend to be higher:

* the more she experiences economic growth problems, measuring those problems in terms of per-capita GDP (significance at 0%) and the level of land exploitation (significance at 13%);

Secondly, we have affirmed that an LFR country has the possibility of developing its offering of financial services, also useful for purposes of money laundering, and this is a second channel of *national benefit* expected from lax financial regulation (*Proposition Four*) . In this regard, we note that the probability that a country became a LFR country tend to be higher:

* the more they have developed the flow of foreign deposits (significance at 1%)

Thirdly, we have stated that an LFR country will be one that have no terrorism and/or organised crime problems (*Proposition Six*). In the regression we use a joint Index of the terrorism risks and of the organised crime risks. In our approach every national policymaker care about both risks, and a lax financial regulation can benefits in principle either terrorism or organised crime. We note that the probability that a country became a LFR country tend to be higher:

* as the degree of terrorism and organised crime risks decrease (significance at 5%).

Finally, the probability that a country became a LFR country tend to be higher: as the degree of democracy decreases, measured by the Democracy Index (significance at 85%); and if the country is a Commonwealth member (significance at 37%). We have to highlight that we do not find data to test the role of the international reputation sensitivity (Proposition Five)[58].

Using the same data set, we can also reach some conclusions on the relationships between potential LFR countries and offshore centres.

While there is a theoretical presumption that international tax evasion and money laundering through offshore centres should overlap[59], there is no need for this to be the case. Map 1 shows the list of countries that are currently not complying with the Guidelines of the Financial Action Task Force. Table 3 show the countries that have been identified by the OECD as engaging in Harmful Tax Competition. As can be seen by comparing the two black lists, not all tax favoured centres are also not compliant with FATF. However, owing to a lax regulatory and supervisory environment banks in those countries are considered as potential targets for money laundering. Similarly a number of "black listed" locations from a tax standpoint are not NCCTs (non-co-operative countries and territories) under FATF.

While this finding may appear to contradict the hypothesis that money laundering and tax evasion are intimately related, this is not altogether surprising in light of the criteria utilised for constructing the "black lists" for NCCTs and centres engaging in "harmful tax competition". The members of FATF did not seek to list a series of transactions that could be identified as "money laundering" and then seek to identify centres in which such transactions were more likely to occur. Rather forty criteria basically relating to the degree of "transparency" of the financial system and to the degree of law enforcement were utilised for defining NCCTs.

In drawing up the "black list" FATF was also careful not to avoid a number of complex issues, such as the definition of "criminal" activity which can vary from centre to centre. This is especially important for "tax evasion" which is treated very differently under the law in various jurisdictions. As a consequence, the emphasis on "non transparency", degree of supervision and law enforcement has led to a very disparate series of jurisdictions appearing as NCCTs.

In the case of the OECD "harmful tax competition" studies (1998) and EU Report of the Primarollo Group, the focus was on identifying tax provisions or preferential regimes in some instances of a very specific nature or relating to a specific type of industry (for example, shipping). The focus was on transactions that could lead to the shifting of the tax base and not necessarily to "tax evasion" which entails the concealment of income. The coverage included regimes in OECD countries and chapters were dedicated to a number of specific topics: artificial definition of the tax

[58] Obviously we cannot test with a cross-country analysis the role of international economic and political enforcement, that, in the traditional economic policy point of view, are variables no country specific, while , in a new political economy point of view, should be more testable *prima facie* using country - case studies.

[59] See ALWORTH and MASCIANDARO (2002), YANIV (1994) and (1999).

base; failure to adhere to international transfer pricing principles; foreign source income exempt from residence country tax; negotiable tax rates or tax base; existence of secrecy provisions; access to a wide network of tax treaties; regimes which are promoted as tax minimisation vehicle; and regimes encourages purely tax-driven operations or arrangements.

There is also another important distinction that can be made between countries engaged in Harmful Tax Competition and NCCTs. Given the complexity of many money laundering schemes, highly sophisticated intelligence and policing operations may be needed to control and eradicate money laundering. This may be difficult for many small centres, particularly because money laundering by its very nature involves circumventing the rule of law and small financial centres may not have the resources to police these activities. Consequently, the efforts of FATF aimed at improving the workings of the financial systems of small financial centres may at times actually assist the development of "more efficient" tax havens.

Therefore, using the same world-wide data set, we do another Probit analysis; the dependent variable is now a Offshore Binary Probit Variable, that is equal to 1 for the OECD offshore countries and 0 otherwise.

The estimated equation is as follows:

$$(OffshoreLI)_t = b_1 + b_2(A1)_t + b_3(B1) + b_6(C1)_t + b_7(D1) + b_8(D2) + b_9(E1)e_t$$

$$\text{with } t = 1 \ldots N$$

where:

A1 = Landuse;
B1 = GDP per Capita;
C1 = Foreign Deposits per Capita;
D1= Democracy Index;
D2 = Commonwealth Country (Dummy variable);
E1 = Terrorism and Organised Crime Index;

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------------------------------------------------------------------------------
Probit estimates                                  Number of obs   =        130
                                                  LR chi2(5)      =          .
Log likelihood = -59.028787                       Prob > chi2     =          .

------------------------------------------------------------------------------
dummyOffShore |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     landuse |   .0018127   .0038405     0.47   0.637    -.0057145    .0093399
   gdpcapita |  -3.79e-07   .0000151    -0.03   0.980      -.00003    .0000293
fordeposits  |   6.37e-07   5.39e-07     1.18   0.238    -4.20e-07    1.69e-06
   T&Crime   |  -1.325194   .2739108    -4.84   0.000     -1.86205   -.7883389
  commwealth |  -.3228179   .2960498    -1.09   0.276    -.9030647     .257429
------------------------------------------------------------------------------


Marginal effects after probit
      y  = Pr(dummyOffShore) (predict)
         =  .31079773
------------------------------------------------------------------------------
variable |      dy/dx    Std. Err.     z    P>|z|  [    95% C.I.   ]      X
---------+--------------------------------------------------------------------
 landuse |   .0006402      .00135    0.47   0.636  -.002014  .003295   63.4623
```

```
gdpcap~a |  -1.34e-07      .00001   -0.03   0.980  -.000011   .00001   11403.8
fordep~a |   2.25e-07      .00000    1.06   0.289  -1.9e-07  6.4e-07    423892
d0tdummy*|  -.4640011      .07904   -5.87   0.000  -.618913  -.30909   .592308
commwe~h*|  -.1094256      .09404   -1.16   0.245   -.29375  .074899   .276923
------------------------------------------------------------------------------
(*) dy/dx is for discrete change of dummy variable from 0 to 1
```

It's quite evident that the regression have not explanatory power. The only exception is represented by the Terrorism and Organised Crime Index: We can say that the probability that a country became an Offshore centre tend to be higher :

* as the degree of terrorism and organised crime risks decrease (significance at 0%).

In general, therefore, we can reject the hyphotesis that the causes of LFR decisions and of Offshore activities are the same.

7. CONCLUSIONS

The lax financial regulation problem, favouring the money laundering phenomena, can increase world-wide the risks of terrorism and of organised crime. In this paper we have explored theoretically and empirically the issue.

Theoretically, the degree of financial laxity can be an endogenous variable, determined by the policy maker cost -benefits analysis, depending then on economic and institutional country variables, as the growth level, the role of the financial industry, the reputation sensibility, the absence of terrorism and/or of organised crime, the institutional attractiveness.

Empirically, the empirical analysis does not repudiate the theoretical assumption that countries, that because of scant resources, foreign dependence in the offering of financial services, and absence of terrorism and/or organised crime risks, and perhaps insensitivity to the international community judgement, can derive net expected national benefits from offering laundering services for illicit foreign capital, and therefore can be or become LFR countries.

The empirical relationships developed are probably interesting but not definitive or conclusive. This prompts at least three reflections. In terms of results, we must stress that the potential LFR country display uniform economic and institutional elements, bolstering the significance of the FATF action, but also marked dissimilarities among them. This suggests two indications for designing international policies of prevention and combat. On the one hand, that by modifying their formal rules they do not automatically cease to be LFR countries, since the incentives for laxity in combating the laundering of illicit capital may be very deep-rooted. On the other hand, that the international community can have an impact on those roots through stick-and-carrot policies tailored to each country, precisely because the degree of laxity and its motivations may not be identical in each case.

On a battlefield where reputation is one of the main weapons, policy makers engaged in the fight against international money laundering schemes should be very cautious in taking initiatives that may affect the reputation of the actors involved. A pure “name and shame” approach may even prove counterproductive. Tampering with reputational mechanisms might, at the same time, not only miss the target but also reach the wrong target. First, there is a high risk of false negatives, i.e. of including in a hypothetical list of countries that supply money laundering services countries that are merely engaged in the offer of financial services of superior quality. The costs of